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INFORMATION TECHNOLOGIES IN UKRAINIAN EDUCATION

Informatization of society for a long and complex process that requires a lot of mental and physical resources. The value of information technology is the ability to collect, analyze and transfer of information, in different points of the world. These technologies complement the intellectual abilities of human. New information technology open the next page in the scientific community of Ukraine and humanity. Education, as one of the major institutions of society, can not avoid this process. Informatization of education aimed at the formation and development of intellectual potential of the nation, improving the learning process through the introduction of computer teaching methods and evaluation of quality of knowledge. It is a key prerequisite training highly qualified specialists in the world today. Informatization of society is associated primarily with the development of computer's techniques, different software, WAN and multimedia technologies. Building effective ways of informatization of education, taking into account international experience and the real state of national education - is one of the urgent scientific and practical problems.

Processes occurring in today's education show that consistently changing traditional views on education in Ukraine. This allows you to provide effective learning through building space in which everyone can create information and knowledge, use and share, allowing to everyone who has appropriate resources to fully realize their potential, promoting their own development and improving the quality his life provided widespread use of new ICT (information and communication technology). In modern Ukraine actively created regulatory and normative base areas of information and information activities, including the Law of Ukraine "on information", "on the National informatization program" "on the Concept of the National informatization program" and other regulations. But along with some success, there are a number of issues, including: insufficient level possible use of modern information technologies; insufficient quantity and quality of base; imperfect legal support using information technology in education, particularly of remote learning.

For example, introduction of distance learning approaches in foreign countries paid due attention, in particular, the problems of the current state and development prospects. The UK has a national strategy on ICT, which included the development of skills, development of appropriate knowledge and skills in the learning process. This approach made it possible to create the basis and foundation for the modified and integrated application of distance learning in higher education UK. Problems use of distance education in recent years has become exceptionally topical in Ukraine. Many citizens of Ukraine who located on uncontrolled territory of Ukraine sometimes haven't financial opportunities to move to another place to get a full education. The solution to this problem, in my opinion, would be the adoption of a national program or law that would allow students to confirm their right to study in Ukrainian educational institutions and to develop further knowledge remotely. Of course, in this case to apply new methods of quality control students received theoretical knowledge and practical skills.

So, as a result of the study found that in recent years more and more space in education takes information technology, global telecommunications networks and other.

Ukraine has long been a leader in scientific and technological advancements, which, in tandem with its skilled workforce and developed educational system, has since independence allowed the country to develop one of the most dynamic IT markets in Eastern Europe.

Now with an estimated 90,000 IT specialists, Ukraine is among leaders in Central and Eastern Europe in terms of the number of domestic IT professionals entering its labor market.

And with the industry fast expanding, Ukraine anticipates computer science to be among the most popular career choices for Ukrainians in the near future. Along with “traditional” computer science courses at the established state higher education institutions, new privately-run, paid-for courses and free ones run by non-governmental organizations are emerging to teach Ukraine’s future programmers.

Classical tech education . Ukraine has long traditions in providing higher technical education. State technical institutions like Lviv, Odesa, Donetsk, Kharkiv and Kyiv polytechnic universities still play a significant role in training specialists in microelectronics, engineering, mathematics and programming.

The Ukraine Digital News report on Ukrainian IT industry says the country’s universities annually produce over 130,000 graduates, of which 36,000 obtain technical degrees, including some 15,000 in information technology-related subjects.

According to investment company Horizon Capital, Ukraine ranks 41st in the world for the quality of its university research.

But the state education sector has bugs to fix. The current educational system, with its theory-heavy curriculum, is starting to look rigid and outdated given the dynamic development of Ukraine’s IT sector. Poor state salaries for university staff makes it difficult for these institutions to attract not just theorists, but those with real experience, says Yegor Stadny, the executive director of CEDOS, a think tank on educational issues.

Stadny says that for Ukraine to retain a competitive educational level at its universities, it will need teachers with professional experience. But such people won’t be tempted from business back into academia without good pay.

“The salaries at universities for teachers of IT programs aren’t competitive enough to bring specialists in from the IT industry,” Stadny told the Kyiv Post. The way to break out of this low-wage, low competitive loop, he says, is to develop the IT industry in Ukraine so that tech companies have the resources to fund technical courses in the universities – effectively paying to educate its future employees.

The catch is that for the IT industry to develop, it’s first going to need a steady stream of good-quality graduates from the present, underfunded educational system.

And Microsoft Ukraine General Manager Nadiia Vasylieva says that employers still look for an academic degree first and foremost when hiring.

“We typically consider candidates with an academic degree, because a university degree still provides the knowledge and basis we are looking for,” Vasylieva told the Kyiv Post. “However, for any position, professional skills and competences are always primary.”

Vasylieva is not put off by graduates lacking practical skills after they finish university.

“All of us have been there,” she said. “I personally believe in the need for constant education and lifelong learning for everyone.”

Private IT schools. Responding to the demand for qualified programmers, entrepreneurs and the IT communities Ukraine’s big cities are starting to offer various short-term courses to teach programming languages.

The courses can be either alternative to, or complement university-based courses. Most, however, are independent of higher education, and focus on teaching particular programming languages.

Andrei Pivovarov, the CEO of GoIT, a provider of tech courses in Kyiv, thinks even though attending university is still an important part of a person’s development, it can’t be considered a fast-track to a successful IT career.

“Undoubtedly, university is good for personal development and socialization, but it’s lagging as a place that helps build a career,” Pivovarov told the Kyiv Post. “Universities are slow. You can enter the IT profession after taking four-six months of commercial courses, while university takes at least four years.”

Indeed, several private programming schools promise to train their clients up for a job in the IT sector in a matter of months.

Such commercial programming courses are now available in schools like LITS in Lviv, the Ukrainian IT School in Kharkiv, SkillsUp in Dnipropetrovsk, GoIT in Kyiv, the Beetroot Academy in Poltava, Odesa and Kyiv, and ITStep, which is present in every large city in Ukraine.

There are various reasons for people to seek a job in the IT industry, but the key one, according to Pivovarov, is the tendency of IT companies to implement western standards in their corporate culture.

Kharkiv IT Cluster Executive Director Nataliya Vynogradska thinks more Ukrainians have started learning programming because the IT industry offers the kind of benefits no other industries yet provide.

“IT-companies offer good employment conditions,” Vynogradska said. “It’s a really promising industry looking ahead to the future. It (also) gives the opportunity to travel – and if you’re a freelancer you can be based anywhere in the world.”

Volunteer IT schools. While many other industries in Ukraine are withering due to the country’s fragile economy, the war, and unstable political situation, the tech business is stubbornly growing, offering more jobs every quarter and bringing money to the state budget.

The top 25 tech companies in Ukraine — including EPAM, Ciklum, Luxoft, GlobalLogic and others — together employ more than 30,000 programmers.

The increasing demand for programmers has encouraged industry players and non-governmental organizations to take active steps to train up more computer science professionals – at no or little cost to students. For instance, the non-profit organization BrainBasket, which has the goal of developing IT education in Ukraine, plans to train 100,000 IT professionals by 2020 via its free courses.

BrainBasket CEO Vladimir Liulka even believes the IT industry can build a middle-class in Ukraine.

“The tech industry does give better working conditions and better salaries,” Liulka said in a March 3 interview. “We can create a middle class – which is a real success for any nation.”

BrainBasket has launched its free educational courses all over Ukraine to teach basic programming. The course, called Technology Nation, is based on a study program for novices designed by Harvard University.

Self-educating. But BrainBasket is not the only option for Ukrainians looking to learn how to program for free.

Microsoft’s Vasylieva says that there are large numbers of excellent online free courses, platforms and websites serving all kinds of IT training. These range from the well-known Coursera and edX free online courses, to free online courses run by top U.S. universities like Stanford, Harvard, MIT and Yale.

“So there’s no excuse for not learning,” Vasylieva says.

REFERENCES

1. <https://www.kyivpost.com>
2. <https://preply.com>